CLAIMS

WHAT IS CLAIMED IS:

1. An electronic communications system with at least one user, comprising:

a gatekeeper in electronic communication with a packet-switched communications network, wherein said gatekeeper is capable of associating a user's subscriber identifier with a dynamic Internet Protocol address for the user; and

a network node in electronic communication with a circuit-switched communications network and the gatekeeper, wherein said network node is capable of transmitting data over both the circuit-switched and the packet-switched network.

2. The system of Claim 1, further comprising:

a subscriber database, wherein said subscriber database comprises data that matches at least one user's subscriber identifier with a dynamic Internet Protocol address for the user.

3. The system of Claim 1, further comprising:

client software, wherein said client software is adapted to communicate with said gatekeeper over the packet-switched network.

4. The system of Claim 3, wherein said client software is adapted to communicate the dynamic Internet Protocol address and subscriber identifier of a user to the gatekeeper.

5. The system of Claim 3, wherein said client software comprises a graphical user interface adapted to allow a user to reject an incoming call.

6. The system of Claim 3, wherein said client software comprises a graphical user interface including an auto-upgrade feature.

7. The system of Claim 3, wherein said client software comprises a graphical user interface including an inbox to retrieve incoming messages.

8. The system of Claim 7, wherein said inbox is adapted to allow a user automatically to call back a caller who is represented in said inbox, said user performing a single action to call back the caller.

9. The system of Claim 3, wherein said client software comprises a graphical user interface including a do not disturb feature.

10. The system of Claim 3, wherein said client software comprises a graphical user interface including an auto silence detection feature.

11. The system of Claim 1, further comprising a media server.

12. The system of Claim 1, further comprising a message notification server.

13. The system of Claim 12, wherein said message notification server is adapted to notify a user that a facsimile message was received.

14. The system of Claim 12, wherein said message notification server is adapted to notify a user that a voice mail message was received.

15. The system of Claim 12, wherein said message notification server is adapted to notify a user that a missed call was received.

16. The system of Claim 1, wherein the circuit-switched communications network is the public switched telephone network.

17. The system of Claim 16, wherein said subscriber identifier is a telephone number that corresponds to the local dialing practices of the public switched telephone network.

18. The system of Claim 1, wherein the packet-switched communications network transmits data packets according to the Internet Protocol.

19. The system of Claim 1, wherein the packet-switched communications network is an intranet.

20. The system of Claim 1, wherein the packet-switched communications network is the Internet.

21. The system of Claim 1, wherein said network node comprises call scripting functionality.

22. The system of Claim 21, wherein said call scripting functionality comprises user-definable voice messages.

23. The system of Claim 22, wherein said messages comprise a voice mail announcement.

24. The system of Claim 22, wherein said call scripting functionality comprises user-definable call routing options.

25. The system of Claim 1, wherein said gatekeeper is adapted to authenticate a user when said user logs into the system.

26. The system of Claim 1, wherein said gatekeeper is adapted to authenticate a user when said user places an outbound call.

27. The system of Claim 1, wherein said gatekeeper is adapted to authenticate a user on an IP device when said user receives an incoming call.

28. The system of Claim 1, wherein said gatekeeper is adapted to remove the association between the dynamic Internet Protocol address and the subscriber identifier of a user that has logged out of the packet-switched network.

29. The system of Claim 1, wherein said network node is adapted to re-route an incoming call placed to the user's subscriber identifier out over the circuit-switched network to a traditional telephone number according to the user's predefined call routing preferences.

30. An electronic communications system, comprising:

a gatekeeper in electronic communication with a packet-switched communications network;

a network node in electronic communication with a circuit-switched communications network and the gatekeeper, wherein said network node is capable of transmitting data over both the circuit-switched and the packet-switched network, further wherein said network node is capable of determining whether said transmitted data represents a facsimile.

31. The system of Claim 30, wherein said network node comprises means for detecting facsimile CNG tones.

32. The system of Claim 30, wherein said network node is adapted to distinguish between facsimile data and voice data.

33. The system of Claim 30, wherein said network node is adapted to wait for a period of time after receiving incoming data to determine whether said transmitted data represents a facsimile.

34. The system of Claim 33, wherein said period of time is approximately two seconds.

35. An electronic communications system, comprising:

a gatekeeper in electronic communication with a packet-switched communications network;

a network node in electronic communication with a circuit-switched communications network and the gatekeeper, wherein said network node is capable of transmitting data over both the circuit-switched and the packet-switched network, further wherein said network node is adapted to accept a voice mail message; and

means for recording a voice mail message in a digital format.

36. The system of Claim 35, wherein said means for recording is the network node.

37. The system of Claim 35, further comprising:

a database capable of storing said voice mail message for later retrieval by a user.

38. The system of Claim 37, wherein said later retrieval comprises the user accessing the system from a PSTN-based device.

39. The system of Claim 37, wherein said later retrieval comprises the user accessing the system from an IP-based device.

40. The system of Claim 35, further comprising:

a media server adapted to stream said voice mail message to a user.

41. The system of Claim 40, wherein said media server streams said voice mail message in a streaming audio format.

42. The system of Claim 35, further comprising:

a notification device for signaling an intended caller when said voice mail message is received.

43. The system of Claim 35, further comprising:

means for sending said voice mail message as an email message.

44. The system of Claim 39, wherein said IP device comprises client software utilizing a graphical user interface.

45. A method for transmitting data, comprising the steps of:

receiving a request to transfer data to a recipient, said request comprising a subscriber identifier for said recipient;

searching for a dynamic Internet Protocol address for said recipient associated with said subscriber identifier;

determining the appropriate communications channel to transmit the data based on the results of said searching step; and

transmitting the data to the recipient in response to said determining step.

46. The method of Claim 45, wherein said request is received from an IP device.

47. The method of Claim 45, wherein said request is received from a telephonic device.

48. The method of Claim 45, wherein said data comprises a voice call.

49. The method of Claim 45, wherein said data comprises a facsimile.

50. The method of claim 45, further comprising the steps of:

receiving a subscriber identifier and dynamic Internet Protocol address from client software running on an Internet Protocol device used by the recipient; and

storing said subscriber identifier associated with said dynamic Internet Protocol address in a database.

51. The method of Claim 50, wherein said subscriber identifier and dynamic Internet Protocol address are received from the client software automatically in response to the recipient's activation of the software.

52. The method of Claim 51, wherein said Internet Protocol device is communicatively connected to the Internet.

53. The method of Claim 51, wherein said dynamic Internet Protocol address is assigned to the Internet Protocol device upon the recipient's logging into the Internet.

54. The method of Claim 50, wherein said determining step comprises:

accessing the database; and

looking up the dynamic Internet Protocol address of the recipient's Internet Protocol device in the database.

55. The method of Claim 45, wherein said step of transmitting the data to the recipient occurs exclusively over a packet-switched network in response to a found dynamic Internet Protocol address for the recipient in said searching step.

56. The method of Claim 55, wherein said packet-switched network is the Internet.

57. The method of Claim 54, wherein said step of transmitting the data to the recipient occurs over both a packet-switched communications network and a circuit-switched communications network in response to failing to locate the Internet Protocol address assigned to the recipient in said looking up step.

58. The method of Claim 57, wherein said circuit-switched network is the public-switched telephone network.

59. The method of Claim 45, wherein said transmitting step further comprises the step of:

ringing the recipient on an Internet Protocol device assigned to the dynamic Internet Protocol address of the recipient.

60. The method of Claim 59, further comprising the step of:

receiving a response to a call acceptance query from client software running on the Internet Protocol device.

61. The method of Claim 60, further comprising the step of:

recording a voice mail message for said recipient in response to said recipient failing to accept the call acceptance query.

62. The method of Claim 61, further including the step of:

notifying the recipient that a voice mail message is waiting to be received.

63. The method of Claim 60, further comprising the step of:

routing said data out over a circuit-switched network in response to said recipient failing to accept the call acceptance query.

64. The method of Claim 60, further comprising the step of:

initiating a voice call with said recipient in response to said recipient accepting the call acceptance query.

65. The method of Claim 64, wherein said call is set up using a protocol selected from the group consisting of H.323, SIP, and MGCP.

66. The method of Claim 45, wherein said transmitting step further comprises the steps of:

determining whether said data represents a facsimile; and

storing said facsimile in a database in response to determining that the data represents a facsimile.

67. The method of Claim 66, further including the step of:

notifying the recipient that a facsimile has been received.

68. The method of Claim 45, wherein said subscriber identifier is a PSTN-based telephone number.

69. The method of Claim 68, wherein said PSTN-based telephone number corresponds to the dialing practices of the local PSTN telephone exchange of the recipient.

70. A method for registering a dynamic Internet Protocol address to a subscriber, comprising the steps of:

assigning a subscriber identifier to the subscriber;

accepting the dynamic Internet Protocol address assigned to the subscriber in response to the subscriber's logging into a packet-switched network; and

registering the subscriber identifier to the dynamic Internet Protocol address in a database.

71. The method of Claim 60, wherein said assigning step comprises assigning a password to the subscriber.

72. The method of Claim 50, further comprising the step of:

unregistering the dynamic Internet Protocol address from the subscriber identifier in the database in response to the subscriber's logging out of the packet-switched network.

73. An electronic communications system comprising:

means for communicatively connecting a packet-switched communications network to a circuit-switched communications network;

means for determining the dynamic Internet Protocol address for a system subscriber; and

means for registering the dynamic Internet Protocol address for the system subscriber to a subscriber identifier for the system subscriber.

74. The system of Claim 73, wherein said means for communicatively connecting is adapted to switch an incoming call to the circuit-switched network if no valid dynamic Internet Protocol address is registered to a called subscriber identifier.